

What is claimed is:

1. A method for detecting the type of replaceable piston-cylinder unit mounted in a pipetting or dosing apparatus by sampling of a code marking on a free end of a head of a piston rod of the piston-cylinder unit with a detection device of the apparatus, comprising the steps of:

- a) inserting the piston-cylinder unit in the apparatus;
- b) coupling the piston rod head with the apparatus;
- c) detecting the presence of the piston-cylinder unit in the apparatus;
- d) generating a relative movement between the piston rod head and the detection device and detecting a reference point on the piston head with the detection device; and
- e) generating a relative movement between the piston rod head and the detection device and detecting the code marking on the piston rod head to determine the type of piston-cylinder unit mounted in the apparatus.

2. The method according to claim 1, comprising the further step of :
generating a relative movement between the piston rod head and the detection device and detecting the code marking to determine whether a piston-cylinder unit that is specific to the apparatus is present.

3. The method according to claim 1, wherein the reference point is detected by placing a thrust element on a side of the apparatus onto the piston rod head.

4. The method according to claim 3, wherein the reference point is detected by detecting a reference mark on the thrust element.

5. The method according to claim 1, wherein detection of the code marking is carried out in dependence on the distance of said relative motion between the piston rod head and the detection device.

6. The method according to claim 2, wherein detection of the code markings is carried out in dependence on the distance of said relative motion between the piston rod head and the detection device.

7. The method according to claim 1, wherein detection of the code marking is carried out at two or more spaced measurement points on the side of the apparatus.

8. The method according to claim 2, wherein detection of the code markings is carried out at two or more spaced measurement points on the side of the apparatus.

9. A pipetting or dosing system, comprising:

a pipetting or dosing apparatus;

a removably mountable piston-cylinder unit formed as a replaceable part, and which comprises a piston with a piston rod and a piston rod head which is provided with a code marking specifying the type of piston-cylinder unit and a reference point detectable from laterally of the piston;

a detection device for automatically detecting the code marking and the reference point of the piston when the piston-cylinder unit is mounted on the apparatus;

a drive device for generating relative movement between the piston rod head and the detection device for enabling the reference point and the code marking to be position for detection by the detection device; and

an evaluating unit for evaluating the code marking with respect to the reference point.

10. The pipetting or dosing system according to claim 9, wherein a measurement device is provided for determining the relative distance covered between the piston rod head and the detection device.

11. The pipetting or dosing system according to claim 9, wherein the drive device comprises a thrust element that is engageable on a front face of the piston rod head.

12. The pipetting or dosing system according to claim 11, wherein the thrust element is resiliently mounted in a guiding sleeve of the drive device.

13. The pipetting or dosing system according to claim 11, wherein the thrust element has a reference mark which forms the reference point.

14. The pipetting or dosing system according to claim 9, wherein the detection device comprises at least one photoelectric cell detector and light emitter.

15. The pipetting or dosing system according to claim 10, wherein the detection device comprises at least one photoelectric cell detector and light emitter.

16. The pipetting or dosing system according to claim 13, wherein the detection device comprises at least one photoelectric cell detector and light emitter.

17. The pipetting or dosing system according to claim 10, wherein the drive device comprises a thrust element that is engageable on a front face of the piston rod head; wherein the thrust element comprises a reference mark which forms the reference point; and wherein the detection device comprises at least a photoelectric cell and at least one light emitter.

18. The pipetting or dosing system according to claim 9, wherein the drive device for generating said relative movement is a drive device for moving the piston rod head.

19. The pipetting or dosing system according to claim 9, wherein a second drive device is provided for moving the piston rod head.

20. A replaceable piston-cylinder unit for a pipetting or dosing system, comprising:

a cylinder and a piston inside of the cylinder, said piston being provided with a piston rod and a piston rod head;

wherein a code marking is provided on the piston rod head by which the type of the piston-cylinder unit is identifiable, said code marking being detectable by a detector positioned laterally of the piston rod head when the the piston-cylinder unit is mounted in a pipetting or dosing apparatus.

21. A replaceable piston-cylinder unit for a pipetting or dosing system with a cylinder and a piston inside the cylinder which is provided with a piston rod and a piston rod head,

wherein the piston rod head is provided with a code marking by which the type of the piston-cylinder unit is identifiable, for use in a method according of any of claims 1 to 8.

22. A replaceable piston-cylinder unit for a pipetting or dosing system with a cylinder and a piston inside the cylinder which is provided with a piston rod and a piston rod head,

wherein the piston rod head is provided with a code marking by which the type of the piston-cylinder unit is identifiable, for use in a pipetting or dosing system according to any of claims 9 to 19.